

Risk Associated with the Installation of the Run IIb CDF Detector Upgrade Project

The cancellation of the silicon construction and its associated installation creates a different environment for the installation of the remaining subprojects than had been planned for the original baseline. All installation activities on the central detector must now occur in the collision hall. The implication is significant for the Calorimeter Preshower installation, since the limited space available in the collision hall restricts access to the inner radius of the central calorimeter. Installation of this system in the collision hall confronts space restrictions that elevate the risk to personnel, equipment, and schedule, when compared to an assembly hall installation. However, this new situation has been studied, and it is believed that the risk can be managed, and reduced to acceptable levels. Two installation scenarios are currently under discussion, the first of which is documented (CDF internal note #6653) and involves the removal of the north side muon system to gain access to the calorimeter. A second approach to the installation, without the muon system removal, represents a strategy with greater risk to the equipment and personnel, and reduced risk to the schedule. Neither of these approaches will be attempted without significant engineering review, detailed installation procedures, and job hazard analyses. More work remains to be done, but the complexity and overall risk of this installation is comparable to other collision hall installations we have performed in the past (muon chamber and scintillator installations). The preshower installation does not represent a radical departure from installation work done for the Run IIa. Consequently, we believe that the installation risk can be reduced to an acceptable level.